Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the matter of	)	
Creation of a Low	)	
Power Radio Service	)	MM docket No. 99-25
	)	
	)	RM-9208
	)	RM-9242
	)	

Comments of
Scott Todd of Cambridge MN, 55008

To the honorable Federal Communications Commission, greetings.

I want to thank you for considering the licensing of low power radio. I would like to address several of the issues of concern in your NPRM, and show that it would be ultimately workable. Additionally, I would like to offer some amendments to the proposal.

First, I would like to see both commercial and noncommercial stations in this service. I fear that if it were restricted to non-com only that it would become the province of far left and far right political and/or religious groups. Many of the would-be station operators desire to operate commercially or at least as a commercial-airing nonprofit, and would be perfect outlets to advertise on for smaller businesses that could not afford to do so on full power stations. Indeed, if they were to do so, it would result in much wasted coverage as well. The current system where commercial stations and commercial airing non profits operate above 92 MHz and non-coms can operate anywhere on the band, with 88-92 MHz reserved, should also apply to the new service. I can think of a number of formats I would like to hear that are currently unavailable in my area, and low power radio could be the medium to bring them into reality.

I would also propose amending the tier system. I would recommend an LP10 and LP100 service with modified primary status, defined as being unbumpable by a higher class station unless an alternate frequency is available, nor can it bump another signal such as a class D or translator. I believe these classes of stations are necessary as in the largest metropolitan areas an LP1000 class station would not fit, or if it did, would preclude too many other potential station owners from getting on the air. Therefore I also propose that LP1000s be banned from the top 50 markets. A small signal can cover a high enough population density to potentially be self sustaining in markets like New York City, Cleveland OH, etc. I'll defer to the comments and appendices of the Amherst Alliance for the reasons and data. The only exception I might allow for in being bumped is where a full power station has lost its site lease, and cannot reasonably expect to find a new site that would not be short spaced. In bumping the LP station, it would have to pay the owner market value.

I believe the proposed tier system, while workable, is not the best, and needs either transitional tiers, or to use signal contour interference formulas to plug the gaps. For the former, I'll defer once again to the remarks of Amherst; no sense in reinventing the wheel. The latter is preferred, in my thinking, though I understand it would be more work for you. Furthermore, if a station does not have room for the full power of its class, it should be allowed up to the maximum available, and still have protection of the maximums of its contour. For example- if a station will not fit with a full 1000 watts, but could with 850, it could be licensed at that figure and receive the full protection of the LP1000 class to the full contour of the 850w, since the minimum is 500w. Also, there is a great gap between the minimum for an LP1000 and the maximum for LP100. Part of the impetus for the low power radio movement is to plug already existing gaps,

and those should also be filled likewise. Perhaps a sub class could be implemented, either as a new tier, or as a modified primary (like the LP100 class) so that in areas that could accommodate one of between 101 and 499 watts it would be allowed. Directional antennas with standard patterns should also be allowed in otherwise short-spaced situations. A consulting engineer would be required to submit measurements which prove the installation was done correctly if one is used.

As to the use of broadcast auxiliary frequencies, I believe that they should be available to all LP stations with primary or modified primary status, but not secondary stations. In order to keep paragraphs to manageable length, I neglected to mention above that I would propose LP10 and LP100 licensees have the option of secondary status, with attendant lower filing fees, lessened EAS requirements (receive only), as two examples. Translators and boosters should not be allowed in the LP service, nor should an LP station be allowed to operate as a translator.

One of the biggest concerns the Commission and the National Association of Broadcasters expressed was over potential interference. Those of us in the LP movement have no desire to create or receive interference. However, unless we are talking about co-channel or first adjacent interference, it is pretty much a function of receiver design as to how close stations can be spaced without experiencing degraded reception. We are confident that current technology is sufficient to eliminate third channel adjacency requirements, and loosen or eliminate second channel adjacencies. Some station engineers have complained that there are too many poor receivers out there to allow this. Following that line of logic, the FCC would never have authorized as many stations as it did even in the late 1920s, as "too many out there are still using crystal sets." If need be, the FCC should issue minimum technical standards for receivers. Indeed, there is precedence,

when the Commission mandated them for UHF tuners in TV sets. In fact, they were so successful that the tuner on a $39.95 five inch B&W TV you can get at Walmart has performance that often equals that of big screen TVs costing thousands of dollars. That reason can squelch the squawking the Consumer Electronics Mfg. Assn. would have over the extra cost in making FM receivers. Ceramic filters are cheap and can make any FM radio quite selective..

Also, I would like to see a low power AM service, perhaps 10-25 watts, daytime only if need be, with a stereo preference in applications for a hobby broadcasters class. To increase incentive to operate in AM stereo, I plead with the Commission to require all radios with FM stereo to be equipped AM stereo.

Back to FM interference, I believe the Commission also has enough faith in current technical standards to eliminate second and third adjacent requirements. A number of short-spaced, grand-fathered stations (mostly in the northeast) have coexisted for years with little or no problem. Here in my own area, if spacing requirements were that much of a concern, we would not have a few existing situations. KMOJ is a 1Kw @ 150' HAAT station on 89.9, and KFAI is 125w @ 442' HAAT on 90.3- a first alternate channel. Moreover, there is now a translator, K214DF, on 90.7 (10w@ almost 600' HAAT) in Minneapolis, right by full power blowtorch KNOW on 91.1. All of these signals peacefully coexist on most receivers, and these are at or near power levels being proposed.

I realize this next is not a scientific study, but having collected a number of radios over the years, I feel it necessary to share my findings. I have one dating back to just after WW-II that has decent selectivity, a Zenith 8HO23W table radio. Other radios of various vintages- Radio

Craftsman model 10 (late 50s), Panasonic SC555 modular home stereo (early 70s), JVC RC-S40JW boom box (early 80s), and even a coat-pocket size Stewart that I bought in '86 for all of $16, can all separate first alternates. I purposely left out those which weren't real common due to their sophistication and expense. Of the ones that can't separate stations, just about anything made by GPX, most cheaper (<$100) "walkman" type radios- those even have a hard time getting weaker stations already licensed in the same markets with lots of blowtorch stations; older tube receivers with primitively designed front ends like the Pilot 602, broad banded IF sets like the Dynaco FM-1 and FM-3 kits. The latter sets are late 50s/ early 60s, but could be easily modified by adding ceramic filters, though they are increasingly going into the hands of collectors who want them more for historical value than everyday listening.

Another possible solution to lessen interference is not to allow subcarriers other than the ones for stereo and possibly the RBDS. While I would like to see an option to run SCA, it isn't that important. Or if it is allowed, that LP stations not be afforded the extra modulation percentage exceeding 100% that full power stations have when they run SCA. Modulation monitors should be required, or in lieu of such, transmitters would have to be equipped with strict modulation controllers. I don't believe reduced bandwidth transmissions other than what is presented above will be necessary [referring to my points on existing stations KMOJ and KFAI which have no such restrictions.]

Should such a service be authorized, there need to be strict ownership restrictions. While the Commission is proposing up to five per owner across the country, I, like most LPFM petitioners that I've met, would like to see only one to a customer, at least to start with. What with over 13,000 requests for special low power authorization in 1998, it would serve the most

potential licensees. If problems with economy of scale are encountered, the limits could be raised later on. Owners should live within the 50/10 contour of their station, or in no case more than 25 miles away from the station. This is to preserve local orientation. Nobody with any substantial interest in existing broadcasting stations would be allowed to apply, and safeguards must be put in place to prevent them from setting up a dummy corporation or putting up front men to do so. It would not be enough to allow them to get licenses in areas they currently have no radio presence.

Some of the ways to accomplish some of the above would be to issue licenses to parent companies, and in the case of individuals, principals only. This will take away the problem of "fronts." No more than 10% of stock may be owned by ineligible sources, nor would a station be able to garner more than 20% of gross revenue or 20% of financing by same. To ensure only smaller organizations may apply, caps of a $200,000/yr. gross annual revenue and $500,000 gross assets (minus the station value) should be applied. Those figures could be adjusted for inflation when necessary. In the case of school districts, one license could be issued to each school with a grade 12 program.

In paragraph 61 of the NPRM, residency requirements were deemed to be a potential frustration to prospective applicants. I would reject that argument on the grounds that numerous people have moved to unserved areas to set up a new station. The usual prohibitions on alien ownership and character qualifications should still apply. Pirates that have voluntarily shut down should be deemed qualified to be applicants. Educational institutions with existing stations may also apply for a student station provided it is licensed to the student association and doesn't share directorship with those of the established station(s), except possibly the institution's chancellor or president. In addition to the usual character qualifications, the same rules regarding the use of

transcribed material, personal attacks, and periodic call sign announcements should apply to all three classes.

I would concur with the writing of paragraphs 72 and 73, with the only additional recommendation that all three classes must at least have their studio within their 1mV/m contour. As for exposure limits, LP 100 and LP 10 classes of stations could be given the benefit of presumed compliance using ERP vs. tower height formulas. In the event an antenna is on the roof of a building, it would be measured from the bottom of the lowest radiating element to the ceiling of the first occupied floor below it.

With regards to operating hours, the current minimums should apply to all with primary or modified primary status, with stations not willing to meet those requirements being given the choice to enter time sharing agreements or be given only secondary status.

As for your proposed construction periods proposed, I recommend extending the time to two years for an LP 100, and 18 months for LP 10. I believe that zoning snafus can still be a major factor, as well as weather in many parts of the country. Additionally, the extra construction time will allow stations to do a higher quality of workmanship if they so choose, instead of having to cobble something together because the deadline is near.

Thank you once again for considering the possibility of creating a low power radio service.

Respectfully,

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